

Publication Impact Metrics: Understanding the Landscape, Applications, and Partnerships

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Objectives

- Understand common impact metrics' strengths and limitations.
- Gain a broad overview of tools that provide citation-based indicators and visualizations.
- Increase awareness of issues around transparency and reproducibility of metric use.
- Learn techniques to increase your chances of enhancing impact.
- Find out how a research impact challenge could benefit your researchers.



Image Source: <https://www.flickr.com/photos/emmacherry/2207748365/>

What We'll Cover...

- Overview
- Tools to find article impact
- Understanding journal metrics
- H-Index
- Ways to enhance impact
- Case study: research impact challenge
- Questions

What is “research impact”?

- Hard to define with many definitions (Alla, et al, 2017)
- Defining impact of research is specific to each project and is varied.
- Some examples of areas of impact (York University, 2018):
 - Economic impact
 - Social impact
 - Impact on health and wellbeing
 - Policy influence and change
 - Technological developments
- Today's primary focus: citation impact

What Metrics are we Talking About?

Citation count - the number of times a peer-reviewed article is cited by other peer-reviewed articles.

H-Index - a metric representing the intersection of an author's productivity (publication count) and impact (citation count).

Relative Citation Ratio - benchmarks PubMed article citation rates against NIH-funded articles of the same field and year.

Alternative metrics - tracks the 'mentions' an article receives across several social media platforms (Twitter, Facebook, Mendeley, policy papers).

Journal Impact- measures a journal's citation count against its total published articles in a given time period.



What Tools are we Talking About?

Scopus:

Largest interdisciplinary indexing and abstracting database with citation tracking.

Journal Citation Reports:

Tool from Web of Science that provides a widely used journal metric: Journal Impact Factor.

Michigan Research Experts:

Database of research expertise across University of Michigan.

Altmetrics Explorer:

Database tracking attention of articles in social media, policy papers, and other tools.

NIH iCite:

NIH tool that calculates the Relative Citation Ratio metric, which benchmarks Medline article citation performance against R01-funded articles.



When and Why
Might I Need
Quantitative Metrics?



Examples: Use of Quantitative Metrics

- Grant proposals
- Professional needs
 - Job seeking
 - Promotion
 - Tenure
- Recruitment
- Article selection for research
- Journal selection

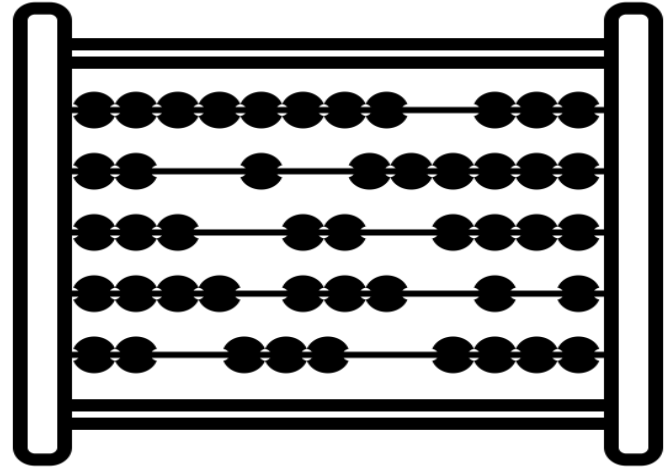


Image Source:

<http://realbusiness.co.uk/hr-and-management/2014/03/07/why-growing-businesses-must-measure-employee-performance/>

Strengths of Quantitative Metrics

- Numbers are quickly at our fingertips
- Ease of use for pulling common metrics
- Provide a seemingly concrete measure



Created by Stefania Servidio
from Noun Project

Issues arising with quantitative metrics

- Overall Dependence on numbers (Bollen J, et al, 2009)
- Resource-dependent due to variations in content coverage
- Variations among fields (i.e., comparing apples to oranges)
- Use of single quantitative metric instead of holistic approach (Hicks et al., 2015)
- Gaming the system (e.g., self-citation)
- Unintended uses (Callaway, 2016)

Best Practices: Principles for Guiding Research Evaluation

Leiden Manifesto's overarching message:

- Make evaluation decisions by combining quantitative data with a close knowledge of the aims and nature of the research at hand.

Examples:

- Quantitative evaluation should support qualitative, expert assessment.
- Account for variation by field in publication and citation practices.
- Keep data collection and analytical processes open, transparent and simple
- Scrutinize indicators regularly and update them.



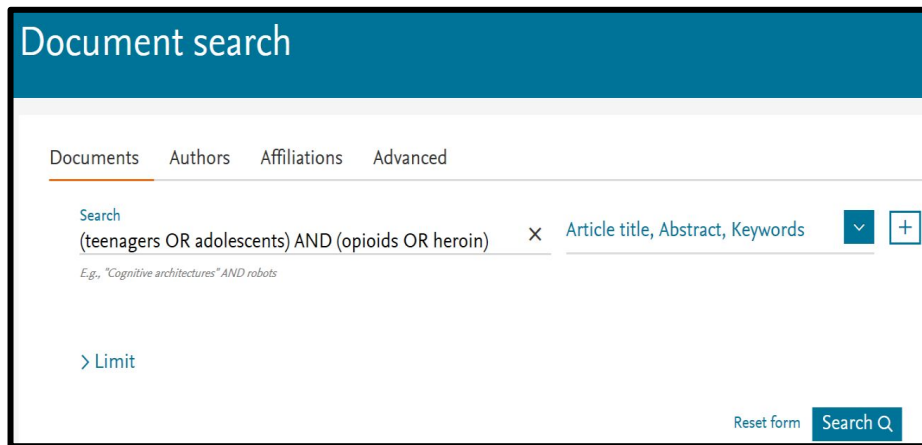
[Hicks D. Wouters P. Waltman L. De Rijcke S. Rafols I. Bibliometrics: the Leiden Manifesto for research metrics. Nature News. 2015 Apr 23;520\(7548\):429.](#)

Which indicators measure the impact of articles?

- ❖ Citation counts
- ❖ Field-Weighted Citation Impact
- ❖ Percentile benchmarking
- ❖ NIH Relative Citation Ratio
- ❖ Altmetrics

Tool to Track and Visualize Citations: Scopus

- Largest interdisciplinary indexing and abstracting database (69M records)
- Includes peer-reviewed journals, book chapters, conference proceedings, patent records
- Value:
 - Publication Counts
 - Citation Counts
 - Article level indicators for benchmarking



The screenshot shows the Scopus 'Document search' interface. It features a teal header with the title 'Document search'. Below the header, there are four tabs: 'Documents' (selected), 'Authors', 'Affiliations', and 'Advanced'. The search area contains a search bar with the text '(teenagers OR adolescents) AND (opioids OR heroin)' and a dropdown menu set to 'Article title, Abstract, Keywords'. A small example text 'E.g., "Cognitive architectures" AND robots' is visible below the search bar. To the right of the search bar is a 'Limit' link and a 'Search Q' button. At the bottom right, there is a 'Reset form' link and a 'Search Q' button.

Scopus Topic Search: “Cited by” sorting

Analyze search results [Show all abstracts](#) Sort on: [Cited by \(highest\)](#)

☐ All [Export](#) [Download](#) [View citation overview](#) [View cited by](#) [Add to List](#) [...](#) [Print](#) [Email](#) [Share](#)

	Document title	Authors	Year	Source	Cited by
<input type="checkbox"/> 1	The fifth edition of the addiction severity index	McLellan, A.T., Kushner, H., Metzger, D., (...), Pettinati, H., Argeriou, M.	1992	Journal of Substance Abuse Treatment 9(3), pp. 199-213	2845
	View abstract ...	View at Publisher	Related documents		
<input type="checkbox"/> 2	Survey of chronic pain in Europe: Prevalence, impact on daily life, and treatment	Breivik, H., Collett, B., Ventafridda, V., Cohen, R., Gallacher, D.	2006	European Journal of Pain 10(4), pp. 287-333	2191
	View abstract ...	View at Publisher	Related documents		
<input type="checkbox"/> 3	Validation of World Health Organization Guidelines for cancer pain relief: a 10-year prospective study	Zech, D.F.J., Grond, S., Lynch, J., Hertel, D., Lehmann, K.A.	1995	Pain 63(1), pp. 65-76	786
	View abstract ...	View at Publisher	Related documents		

Scopus Benchmarking Indicators: Field Weighted Citation Impact

Fundamental movement skills in children and adolescents: Review of associated health benefits [Back to article](#)
(2010) Sports Medicine, 40(12), pp. 1019-1035

Scopus Metrics ?

Citation Count

306

Cited by in Scopus

Field-Weighted Citation Impact

6.79

Citation Benchmarking

%

99th percentile

Compared to Health Professions articles of same age and document type

Cited by



306 Citations

Date range: 2014 to 2018

☐ Exclude self citations

☐ Exclude citations from books

Edit the data for this graph.

Update

Scopus Benchmarking Indicators: Citation Benchmarking



Scopus Author Citation Snapshots

Kerr, Eve A.

[Follow this Author](#)

VA Medical Center, Center for Clinical Management Research,
, United States
Author ID: 7006610258

[View potential author matches](#)

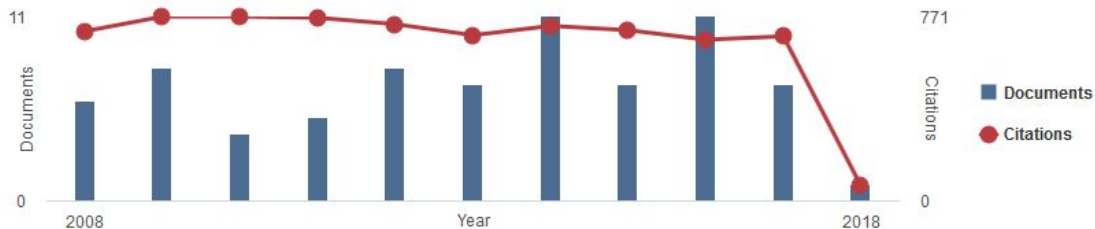
Other name formats:

[Kerr, Eve](#) [Kerr, E. A.](#) [Kerr, Eva A.](#)

Subject area:

[Medicine](#) [Nursing](#) [Social Sciences](#) [Health Professions](#) [Biochemistry, Genetics and Molecular Biology](#) [Psychology](#)
[Agricultural and Biological Sciences](#) [Engineering](#) [Neuroscience](#) [Chemical Engineering](#)

Document and citation trends:



[h-index: 45](#)

[View h-graph](#)

45

Documents by author

135

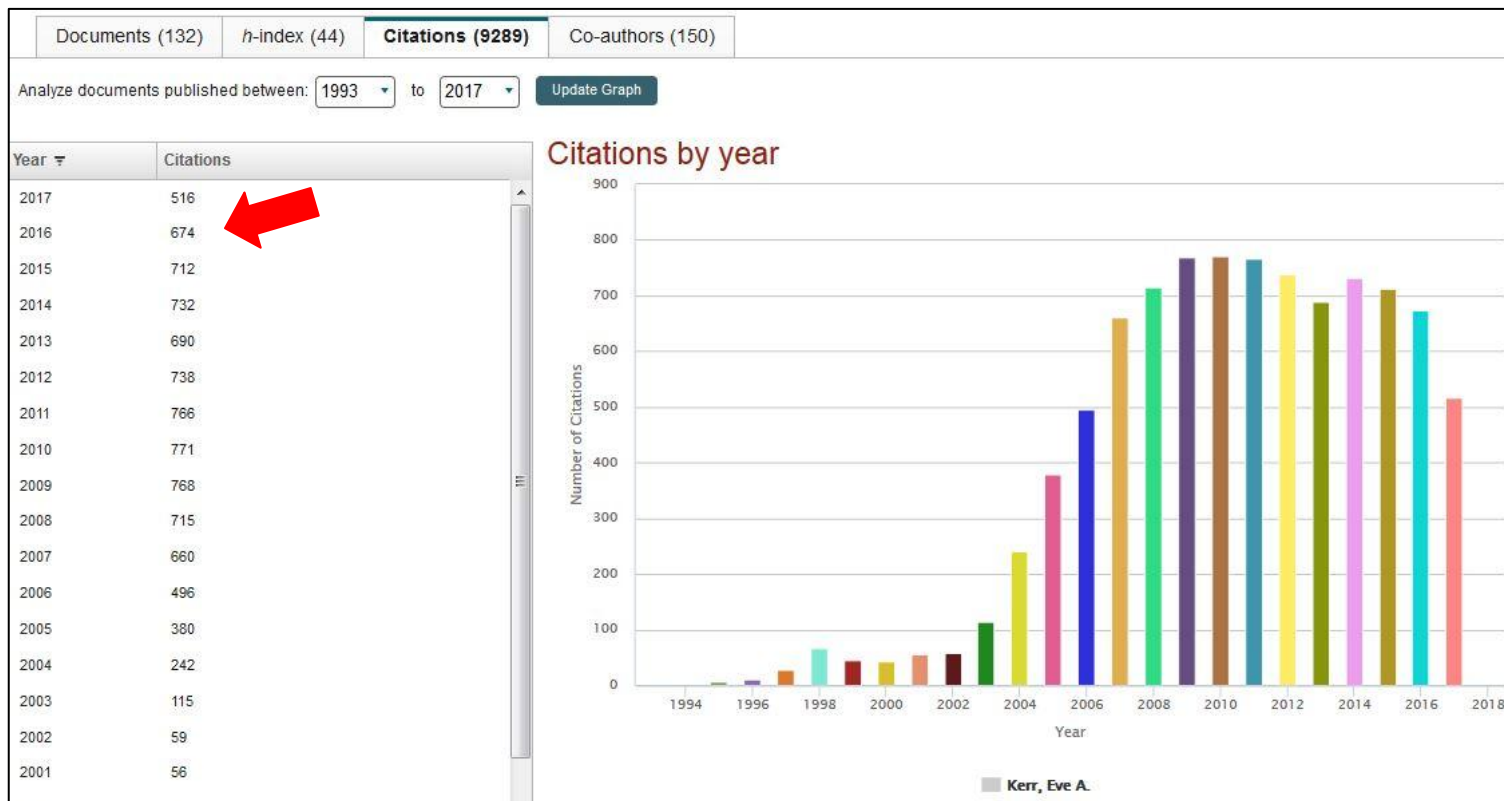
[Analyze author output](#)

Total citations

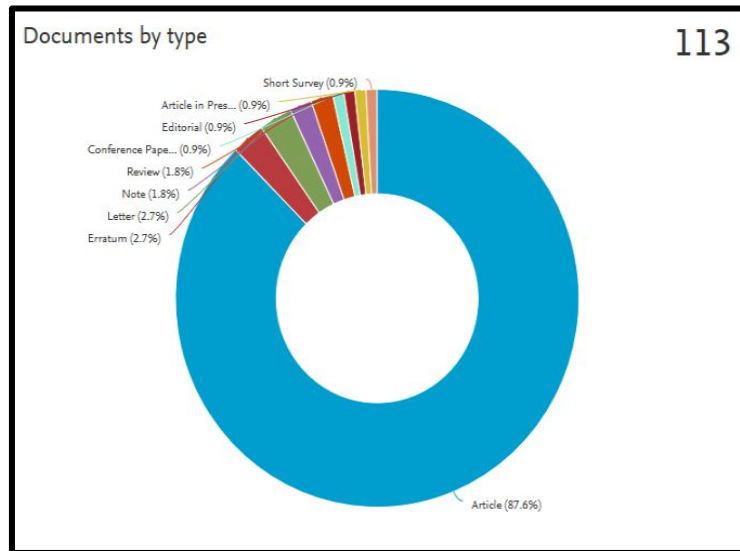
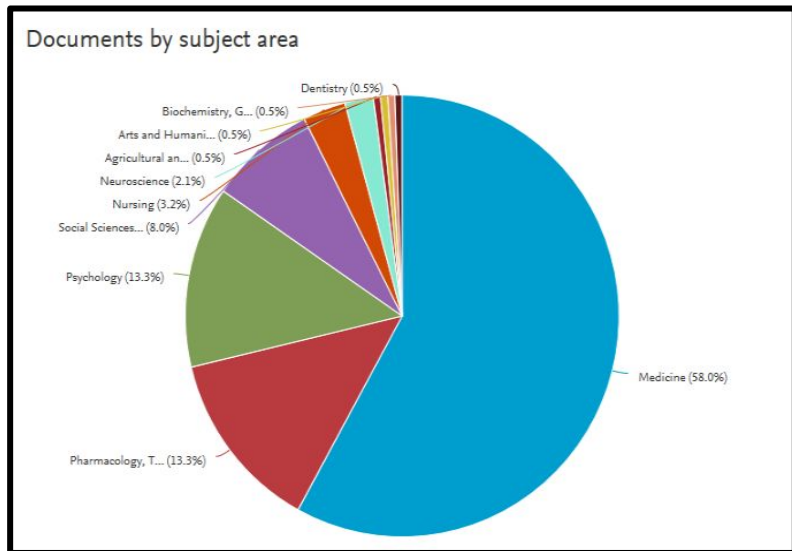
9525 by 7871 documents

[View citation overview](#)

Scopus Author snapshots: Visualization by Year



Scopus: Visual Analysis of Author Output



Google Scholar citation counts

- More varied content than Scopus.
- Peer-reviewed articles, but also books and grey literature.
- **Value:**
 - Helpful when looking for citations beyond peer reviewed content (e.g., research institute reports policy-related content)
- **Caveat:**
 - Lacks refined search features and filters
 - Content not carefully curated

Influences of gender and socioeconomic status on the motor proficiency of children in the UK

D Morley, [K Till](#), P Ogilvie, G Turner - Human **movement science**, 2015 - Elsevier

Abstract As the development of **movement** skills are so crucial to a child's involvement in lifelong physical activity and sport, the purpose of this study was to assess the motor proficiency of children aged 4–7 years (range= 4.3–7.2 years), whilst considering gender

☆   Cited by 18 Related articles All 7 versions Web of Science: 6 

Same article in Scopus cited 7 times.

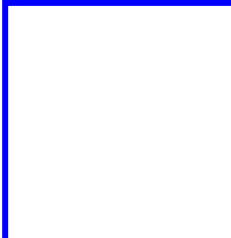
Research Information Management Systems

- Highlights faculty expertise (e.g., publications, grants, patents)
- Value:
 - Retrieval of researcher output
 - Finding collaborators and mentors
 - Understanding research networks (e.g., co-authors)

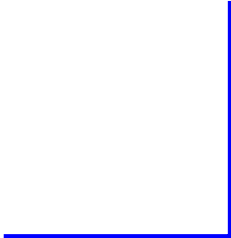
The screenshot displays the 'Experts' page for John Ayanian on the University of Michigan website. The interface is divided into several sections:

- FILTERS / FAVORITES:** A sidebar on the left showing a list of researchers under the 'MICHIGAN RESEARCH...' filter. John Ayanian is at the top with 314 mentions, followed by Brahmajee Nallamothu (7), Renuka Tipirneni (4), Susan Goold (4), Douglas Schaubel (4), Yee Lu (3), Richard Hirth (3), David Selewski (3), Debbie Gipson (3), and Rajiv Saran (3). A 'More' link is at the bottom.
- Profile Header:** Features a circular profile picture, the name 'John Ayanian', his title 'Professor', and affiliation 'University of Michigan - United States'. A 'Contact' button is present.
- LATEST ALTMETRIC MENTIONS:** A section showing recent media mentions, including a link to an NBC News article from October 15, 2018, about the Ohio governor race.
- Altmetric Metrics:** A row of four boxes showing counts for 'UM EXPERTS' (52), 'UM PUBLICATIONS' (314), 'UM GRANTS' (selected filter not applicable), and 'UM PATENTS' (selected filter not applicable). Below this is a link for 'UM CLINICAL TRIALS'.
- ANALYTICAL VIEWS:** A right-hand sidebar with two expandable sections: 'FIELDS OF RESEARCH' and 'SOURCE TITLES'. The 'FIELDS OF RESEARCH' section lists various medical fields with their respective mention counts (e.g., Public Health and Health Sciences: 159, Oncology and Carcinogenesis: 47). The 'SOURCE TITLES' section lists specific journals and publications (e.g., The New England journal of medicine: 35, JAMA: 17).

<https://experts.umich.edu>



How can researchers explore
engagement with their articles across
news and social media?



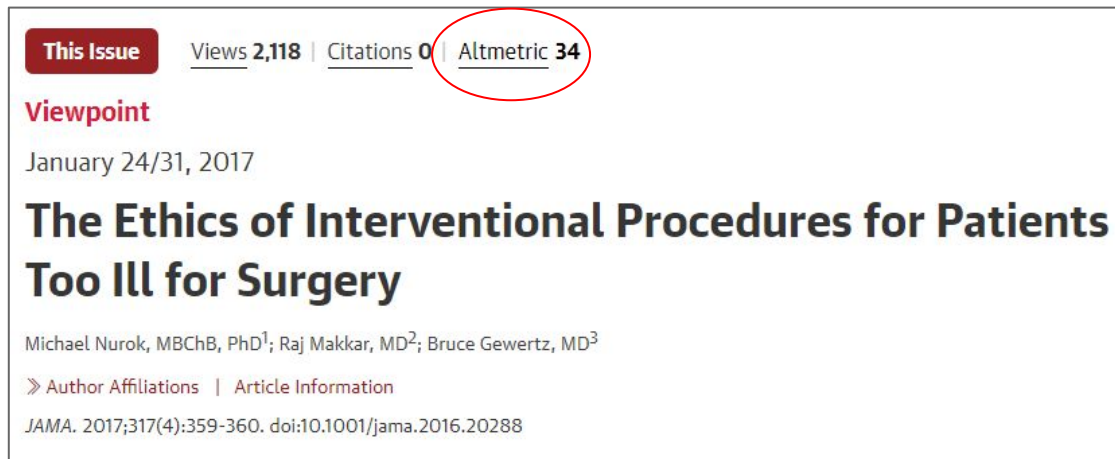
Alternative metrics

- **"Altmetrics:"** metrics based on the Social Web for analyzing and informing scholarship"
(<http://altmetrics.org/manifesto/>)
- **What they count:**
 - Blog posts, Tweets, Facebook mentions, downloads, saves, news mentions, Wikipedia citations, policy papers, etc...
- **Why?**
 - Supplements traditional metrics: measures attention beyond journals
 - Quick (scholarly citations take time)
 - Interactive



You might see altmetrics in...

- Article records in subscription databases
 - Scopus (PlumX Analytics)
 - [EBSCOhost databases](#) (e.g., CINAHL)
- Publisher websites
- Michigan Research Experts



This screenshot shows the top portion of a JAMA article page. At the top, there is a navigation bar with a red 'This Issue' button, followed by 'Views 2,118', 'Citations 0', and 'Altmetric 34'. The 'Altmetric 34' is circled in red. Below this is a red 'Viewpoint' label, the date 'January 24/31, 2017', and the article title 'The Ethics of Interventional Procedures for Patients Too Ill for Surgery'. The authors are listed as Michael Nurok, MBChB, PhD¹; Raj Makkar, MD²; Bruce Gewertz, MD³. Below the authors are links for 'Author Affiliations' and 'Article Information'. At the bottom, the full citation is provided: 'JAMA. 2017;317(4):359-360. doi:10.1001/jama.2016.20288'.

This Issue Views 2,118 | Citations 0 | **Altmetric 34**

Viewpoint

January 24/31, 2017

The Ethics of Interventional Procedures for Patients Too Ill for Surgery

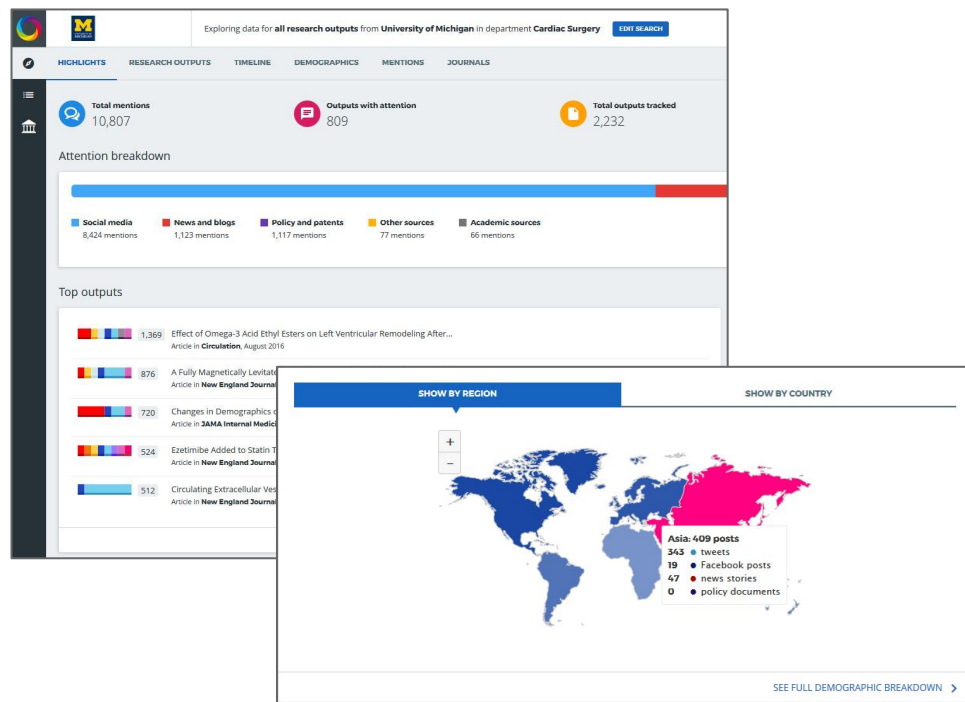
Michael Nurok, MBChB, PhD¹; Raj Makkar, MD²; Bruce Gewertz, MD³

» Author Affiliations | Article Information

JAMA. 2017;317(4):359-360. doi:10.1001/jama.2016.20288

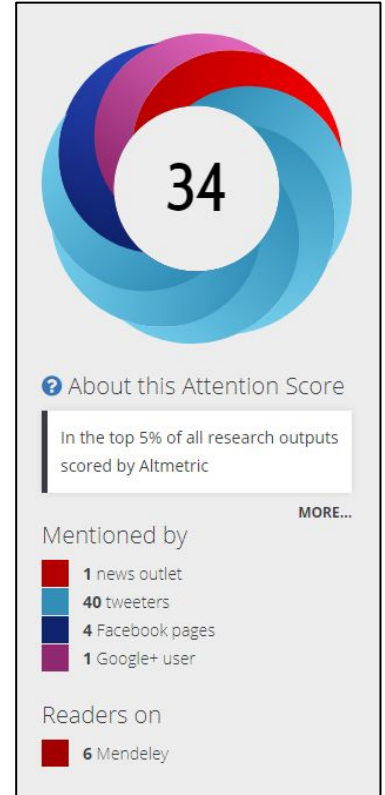
Altmetric Explorer for Institutions

- Aggregates mentions of publications in news, social media posts, and policy papers



Altmetric.com "Attention Score"

- Proprietary score based on quantity and "quality" of mentions.
(e.g., news article weighted more than tweet)
- Exploring actual mentions may lead to stories about impact.
- "Attention score in context" benchmarks with articles of same journal and publication year.





What does Journal Impact Factor (JIF) indicate about research impact?

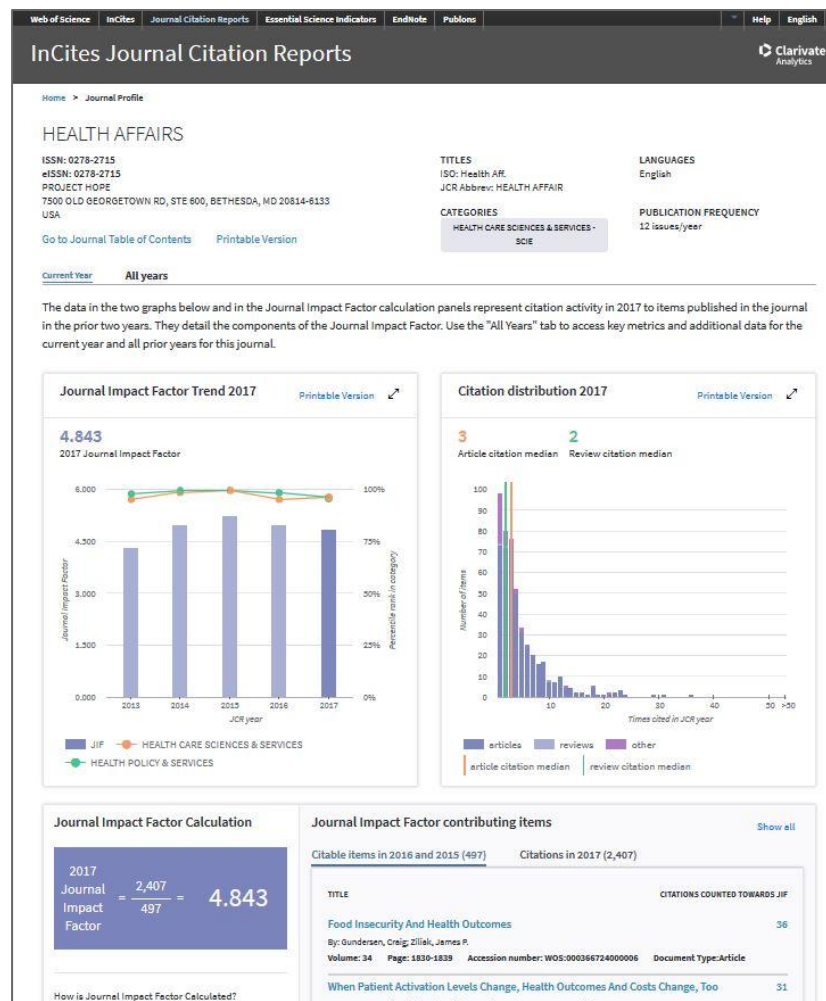


Journal selection considerations

- "What are the high impact journals in a given field?"
- "How do I find prestigious journals in fields I'm not familiar with?"
- "What journals should I have on my manuscript wish list?"
- "Where should I publish for the most visibility? To reach the right audience?" (basic science, clinical, translational)

Journal Impact Factor

- Available in the [Journal Citation Reports \(JCR\)](#) database
- Produced by Clarivate Analytics
- JIF only calculated for journals indexed in JCR.



How is Journal Impact Factor calculated?

citations in 2018 → articles published in 2016 & 2017

"citable articles" published in 2016 & 2017

Journal Impact Factor, *ex: JAMA*

21,586 citations in 2018 → articles published in 2016 & 2017

421 "citable articles" published in 2016 & 2017

JAMA Impact Factor = 51.27

But, Impact Factor is not the full story...



Journal Impact Factor- 47.6



"the bible of health policy"
- The Washington Post

Journal Impact Factor- 5.7

Benchmarking JIF score by discipline

Ex. Journal Citation Reports "Healthcare Sciences and Services"

Compare Selected Journals		Add Journals to New or Existing List		Customize Indicators	
Select All		Full Journal Title	Total Cites	Journal Impact Factor ▼	Eigenfactor Score
<input type="checkbox"/>	1	MILBANK QUARTERLY	3,936	7.425	0.00460
<input type="checkbox"/>	2	BMJ Quality & Safety	5,234	7.043	0.01723
<input type="checkbox"/>	3	HEALTH AFFAIRS	17,240	5.711	0.05319
<input type="checkbox"/>	4	ACADEMIC MEDICINE	15,669	5.083	0.02726
<input type="checkbox"/>	5	VALUE IN HEALTH	8,819	5.037	0.01820

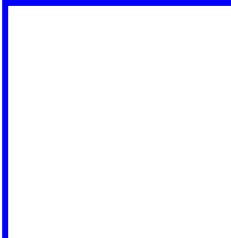
"In the last year, I have published two articles in Health Affairs, the #3 ranked journal by Impact Factor in JCR's Healthcare Sciences and Services category (Journal Citation Reports, 2018)."

Journal Impact Factor criticisms

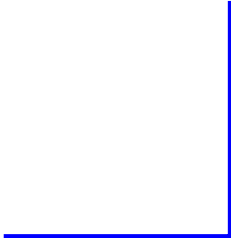
- Proxy for assessing impact of authors and individual publications
- Skewed citation distribution among articles in journal (Seglen, 1997; Garfield, 2006; Adler, Ewing & Taylor, 2008)
- Does not compare well across disciplines (Adler, Ewing & Taylor, 2008; Vanclay, 2012)
- Over-reliance on JIF in research evaluation (San Francisco Declaration on Research Assessment, 2013; Hicks et al., 2015)
- Easily manipulated by editorial policy (PLOS Medicine Editors, 2006)

Impact Factor recommendations

- **Assessing journals for manuscript submission wish lists**
 - look at multiple journal metrics (JIF, CiteScore, Scimago)
 - consider intended audience
 - consider speed to publication
 - copyright restrictions (e.g., ability to post pre-prints)
- **Using journal metrics in personal statements**
 - present journal's rank within sub-discipline to provide context
 - supplement with *article* metrics and other indicators (e.g., community or geographic reach) to express influence of specific research outputs. (San Francisco Declaration on Research Assessment, 2013)

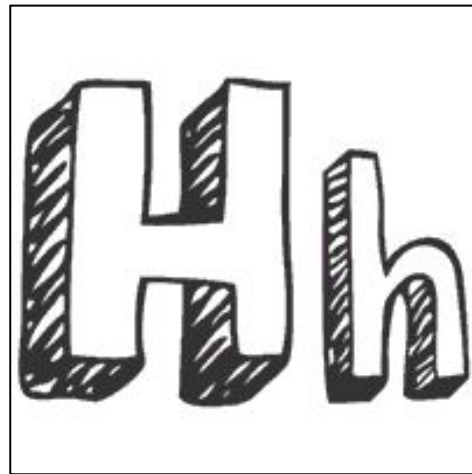


Does the H-Index offer
insight about an
author's impact?



What is the H-Index?

- **H-Index** represents the intersection of an author's productivity (as number of published articles) and impact (as citation count)
- equal to the number of publications h , which have been cited at least h times
- example:
"H-Index = 4" when **4** of a researcher's 15 articles have received ≥ 4 citations



<https://www.alphabetcoloring.net/abc/letter-h/>

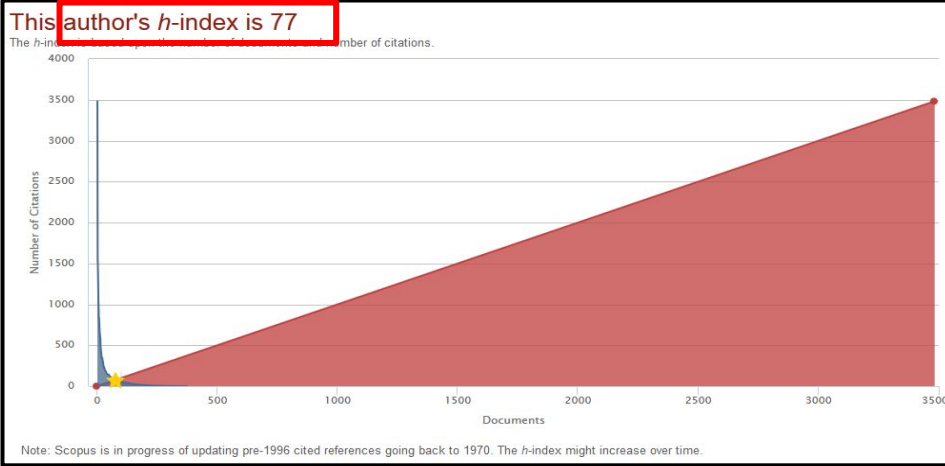
H-Index Limitations

- Does not compare equally across disciplines
- Does not take author role or contribution into account (1st author ? middle ?)
- Biased toward mid-late career researchers
- Too much dependence on one number



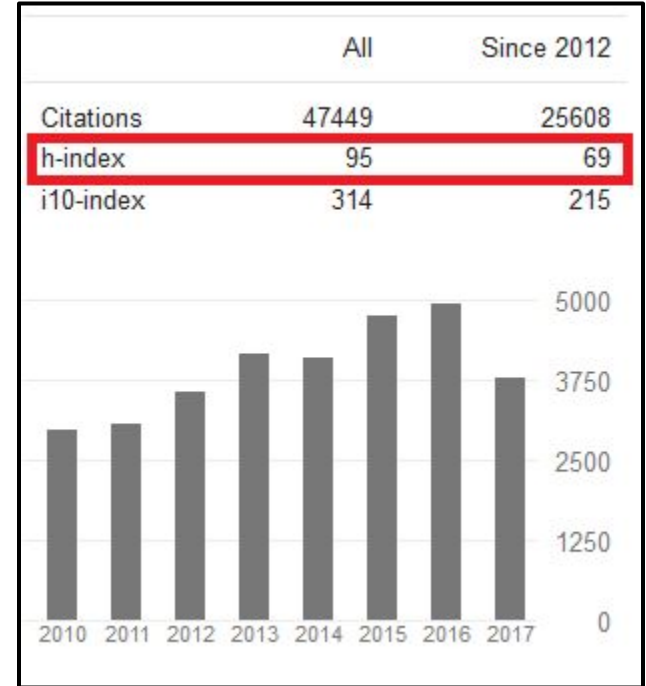
Image Source: http://www.condenaststore.com/-sp/Give-it-to-me-nuanced-Doc-New-Yorker-Cartoon-Prints_i8476199_.htm

Scopus

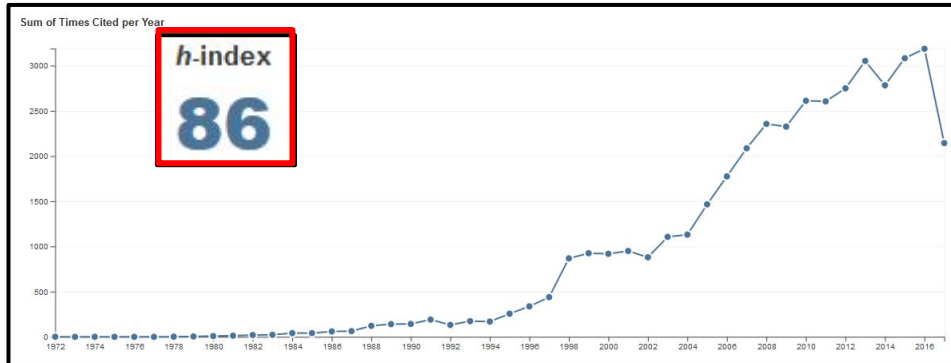


H-Index is "resource dependent"

Google Scholar



Web of Science





A few best practices



Using metrics in personal impact statements

- Select metrics that represent what they were designed to measure.
- Incorporate benchmarking for context, rather than listing metrics in a vacuum.
- Use more than one metric.
- Cite the source(es) of metrics.
- Combine quantitative metrics with broader narratives.

Match indicator to need

What you want to measure	Metric	Source
Research article in peer-reviewed literature	Field-Weighted Citation Impact	Scopus
Research article across web	Alternative metrics	Altmetric Explorer for Institutions Michigan Research Experts Publisher websites
NIH-funded research article	Relative Citation Ration	NIH iCite
Journal	Journal Impact Factor	Journal Citation Reports
Journal	CiteScore	Scopus
Journal	Scimago Journal Ranking	Scimago Journal and Country Rank

For more examples, see metrics-toolkit.org

For example:

My article in JAMA in 2015, *Association between prescribing patterns of fentanyl and overdose-related deaths*, was ranked in the 99th percentile for citations among general medicine research articles published in the same year. (Citation Benchmarking, retrieved November 1, 2018, from Scopus Database)

My article in *Health Affairs* in 2014, *Medical practice variations in opioid prescribing patterns: challenges and recommendations*, shows evidence of translation beyond academia by being cited in six policy documents. (Association of the Scientific Medical Societies in Germany; National Institute for Health and Care Excellence; retrieved November 1, 2018, from Altmetric Explorer for Institutions Database)



How can investigators
maximize the impact of
their research?

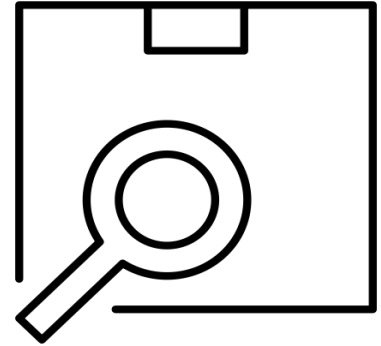


- **Manage researcher identity online**

- Create a Google Scholar profile
- [ORCID](#) ID and profile
- Publons ID
- Scopus Author ID (*automatically assigned*)
- Maintain online CV or publication list
(e.g., [Michigan Research Experts](#))

- **Make work discoverable with article title and abstract**

- use relevant keywords
- include study type and results if appropriate



Created by Ralf Schmitzer
from Noun Project

Google Scholar profile aids discoverability

Google Scholar

healthcare disparities

The role of social context in racial disparities in self-rated health

CN Bell, RJ Thorpe, TA LaVeist - Journal of Urban Health, 2018 - Springer

... status, health behavior

Other covariates included



Caryn Bell

Assistant Professor, University of Maryland

Verified email at umd.edu - Homepage

African Americans cardiovascular disease risk ... place GIS

FOLLOW

TITLE

CITED BY

YEAR

Health inequalities: trends, progress, and policy

SN Bleich, MP Jarlenski, CN Bell, TA LaVeist
Annual review of public health 33, 7-40

200

2012

Race/ethnicity and hypertension: the role of social support

CN Bell, RJ Thorpe, TA LaVeist
American journal of hypertension 23 (5), 534-540

88

2010

The interrelationship between hypertension and blood pressure, attendance at religious services, and race/ethnicity

CN Bell, JV Bowie, RJ Thorpe
Journal of religion and health 51 (2), 310-322

31

2012

The effect of religious service attendance on race differences in depression: Findings

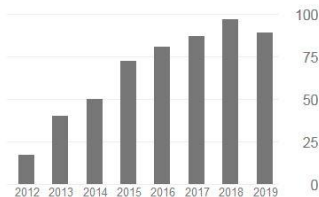
30

2012

Cited by

VIEW ALL

	All	Since 2014
Citations	558	478
h-index	12	12
i10-index	13	13



Share work widely

- Journal choice
 - Prestige and wide distribution, vs. reaching your key audience.
- Share work widely
 - Does publisher/author agreement allow posting pre-print manuscripts, figures or data online? (e.g., U-M [Deep Blue](#), F1000Research, Figshare)
 - [Sherpa / Romeo](#) tool - database of publisher copyright & self-archiving policies
 - Blog or tweet plain-language summaries of articles, e.g., visual abstracts (Ibrihim, 2017)
- Track the online attention to articles using altmetrics



Image credit: Flickr user Free Press / Free Press Action Fund

Express impact broadly

- Keep best practices in mind
 - Leiden manifesto ([10 principles](#) for research assessment)
 - San Francisco Declaration on Research Assessment ([DORA](#))
 - The Metrics Toolkit (metrics-toolkit.org)
- Consider impact broadly
 - [100 Metrics to Assess & Communicate the Value of Biomedical Research](#)
 - [Becker Medical Library Model for Assessment of Research Impact](#)
 - [U.K. REF impact statements](#)



Recap

- Metrics are resource dependent; always cite metric sources.
- Consider what most needs to be expressed about publication impact, then select metrics that correspond to those needs.
- Consider database coverage and metric methodologies for awareness about individual metric strengths and limitations.
- Manage your online research presence and share your work widely.

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Slide 4

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Case study: U-M Library Research Impact Challenge January 2018

Plan - Execute - Assess - Iterate

September-November 2018

- Learned about the work of others:
 - Stacey Konkiel's OA ebook, [The 30-Day Impact Challenge](#)
 - Erin Anthony and Kelsey Sawyer's one-week research impact challenge at Brown University ([Challenge materials available here!](#))
- Sought guidance/advice from colleagues



Plan - Execute - Assess - Iterate

December 2018:

- Reviewed existing examples
- Made key decisions for our program:
 - Audience: beginners at U-M
 - Timeframe: Two-weeks (January 14-25)
 - Content: Interdisciplinary, department/school agnostic
 - Platform: email (Mailchimp)
- Selected topics & started developing content--some adapted from others, some unique.

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Scholarly Communication: 7-Day Impact Challenge

Home Open Access Author's Rights Publishing ORCID Research Impact Data Management

Impact Challenge

This guide is based on Duquesne's University's 7-Day Challenge.

The 7-Day Challenge was adapted from the 30-Day Impact Challenge: The Ultimate Guide to Raising The Profile of Your Research by Stacy Konkai.



The book is licensed under a CC-BY license and is available for free as a PDF.

Read the book for more details and further strategies for raising your scholarly profile.

Raise your scholarly profile and research impact in 7 days!

Day 1: Create an ORCID Profile. Register in just 30 seconds!

[Learn more about ORCID and how to create your profile.](#)

Day 2: Create a researcher profile on Academia.edu, ResearchGate, Mendeley, or Figshare.

[Learn more about researcher profiles.](#)

Day 3: Make LinkedIn work for your research.

Step 1: Create a solid, full profile.
Step 2: Highlight your research. Add your best publications and notable awards.
Step 3: Connect with other researchers.

Day 4: Find your research community on social media.

Twitter is a fantastic resource to find research communities to engage with, but you can also use Facebook for professional connections. When using social media to connect to other researchers, choose if you want your social media presence to be purely professional or a mix of personal and professional.

Tip 1: Share on social media when you publish a new article or present at a conference. If your research is publicly accessible and has a DOI (by publication, archiving, or sharing on figshare) then you'll be able to get [altmetrics](#) data on your paper or presentation.

Join Twitter chats! #withaPhD, #PhDchat, #ECRchat, #vitschat are all general research communities you can engage with on Twitter. Your discipline may also have regular Twitter chats where you can engage with colleagues.

[View the Cultivating Your Digital Identity library workshop slides for more tips.](#)

Day 5: Create a Google Scholar profile. Discover when your work is discussed and shared online.

Step 1: Register for a Google Scholar profile at [scholar.google.com](#) and click the "My Citations" link at the top of the page.
Step 2: Add your publications. Google has likely been indexing your work already and will provide you with a list of publications that they think belong with you. Read through the list and select which publications to add to your profile. Add any missing publications to the list if you want them included.
Step 3: Make your profile public.
Step 4: Create an alert to find out when your work receives a new citation. When logged into your Google Scholar profile, click on "Follow" by your name, select "Follow new citations," and click "Create alert."

Day 6: Archive your research!



Plan - Execute - Assess - Iterate

Takeaways from planning:

- Referrals through library colleagues to find the right guidance worked really well!
- Build on pre-existing models--don't reinvent the wheel--but, take time to consider the specific audience and make choices accordingly
- Model of consulting w/ colleagues & proceeding with work independently allowed for rapid development of the idea

Plan - **Execute** - Assess - Iterate

Promote: December 2018

- Created sign-up form using MailChimp
 - Only asked for email address
 - Opt-in
 - Clear limits to what they committed to
 - Referred to [U-M Communications style guide](#) for colors, etc.



Join the **Research Impact Challenge!**

Kick off the new year with the U-M Library's two-week research impact challenge! Sign up here to receive one challenge from the Library in your email inbox every business day from January 14-January 25 (10 emails in all--that's it).

Each email will describe one activity that you can do that day to improve your online scholarly presence, better understand and communicate the impact of your research, or reach new audiences for your work. The activities will vary, but are designed to take anywhere from 5 to 30 minutes.

Week 1 will focus on your online scholarly presence: how can you ensure that you and your work are represented accurately and appropriately on the web?

Week 2 will focus on the various ways to measure the success and impact of scholarly work, and strategies for situating yourself and your research in order to make a compelling case for your work.

Once the challenge is over, you won't see any more emails pertaining to this challenge.



Plan - **Execute** - Assess - Iterate

Promote: December 2018-January 2019

- Promoted the message
 - Library newsletter (several times)
 - Subject specialists' email group and announcement at selectors' meeting
 - Sent directly to folks I knew would be interested (e.g., Office of Research)

Reminder: Research Impact Challenge, January 14–25

[Rebecca A Welzenbach](#)

This is a reminder that faculty and students, as well as library staff, are invited to kick off the new year with U-M Library's two-week research impact challenge! [Sign up](#) to receive one challenge from the library in your email inbox every business day from January 14–25 (10 emails in all — that's it).

Each email will describe one activity that you can do that day to improve your online scholarly presence, better understand and communicate the impact of your research, or reach new audiences for your work. The activities will vary, but are designed to take anywhere from 5 to 30 minutes.

Week 1 will focus on your online scholarly presence: how can you ensure that you and your work are represented accurately and appropriately on the web?

Week 2 will focus on the various ways to measure the success and impact of scholarly work, and strategies for situating yourself and your research in order to make a compelling case for your work.

[Just enter your email address in this form to get started!](#)

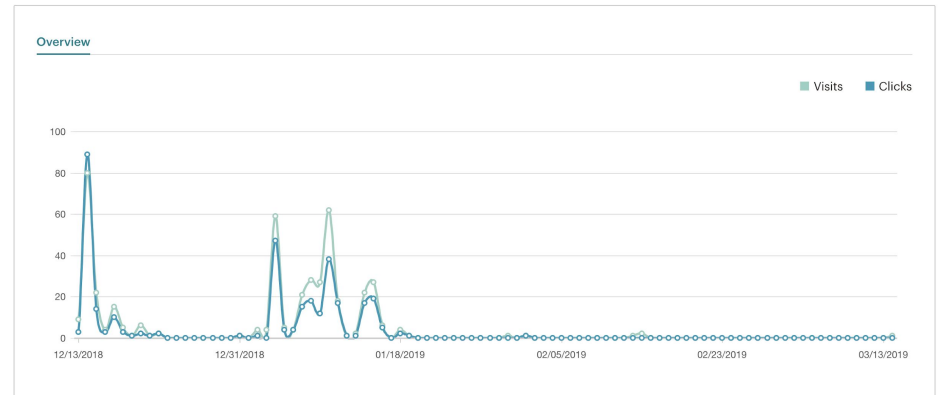
All are welcome to participate, though the themes and activities may be most relevant to graduate students and early career scholars. Please spread the word to people and departments you work with!

Plan - **Execute** - Assess - Iterate

Takeaways from promoting:

- Send all the reminders!
- Model of reaching folks through subject specialists works well for graduate students and faculty, *but missed a “layer” of research managers/administrators--e.g., YOU ALL*
- Be strategic about timing
- 274 subscribers in all

Landing page performance





Plan - **Execute** - Assess - Iterate

Rough demographics of participants

- ~20% library folks; ~48% faculty or staff outside the libraries; 31% students (almost all graduate students)
- Spread all over campus. Departments with highest counts: English Lang & Lit. PHD (9), Natural Resources and Environment MS (7), SEAS (7), Earth & Environmental Science PhD (6), Astronomy (6), Psychology & Women's Studies (6), School of Nursing (6).



Plan - **Execute** - Assess - Iterate

Week 1: Your Scholarly online Presence

- Register your ORCID
- Claim your Google Scholar Profile
- Preserve & Share your work with a digital repository
- Social Media Audit
- Your personal web page

Week 2: Introduction to Research Impact Metrics

- What I do, what's important to me, and what "counts"
- Finding appropriate metrics
- The h-index (and other citation-based measure of impact)
- Alternative metrics
- Responsible metrics



Plan - **Execute** - Assess - Iterate

Writing/Developing Content: December 2018 -January 2019

- Drafted the text
- Synthesized existing resources -- in the library, in the literature
- Shared with targeted colleagues for feedback
- Created template/structure in Mailchimp -- consistency of experience, connecting the dots from day to day
- OMG Screenshots



Plan - **Execute** - Assess - Iterate

Takeaways from Writing/Developing Content: December 2018 -January 2019

- You will never have enough time, but leave as much “runway” as possible
- Make use of--and feature, and credit!--the expertise of colleagues
- So much work
- Systematically name and save your screenshots
- Formatting will destroy your soul

Plan - **Execute** - Assess - Iterate

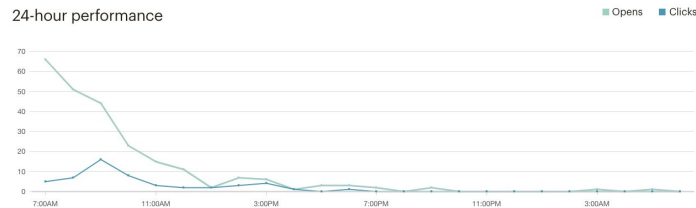
Running the challenge! January 2019

- Scheduled the messages; monitored progress
- Monitored MailChimp statistics
- Replied to one-off email queries and questions (including folks joining the challenge late)

201 Opened	67 Clicked	1 Bounced	0 Unsubscribed
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Successful deliveries	232 99.6%	Clicks per unique opens	33.3%
Total opens	370	Total clicks	147
Last opened	2/27/19 9:55AM	Last clicked	2/13/19 6:34PM
Forwarded	0	Abuse reports	0

24-hour performance



Top links clicked

https://researchid.it.umich.edu/researchid/public/welcome	81
https://mcommunity.umich.edu	26
https://support.orcid.org/hc/en-us/categories/360000663114-Building-your-ORCID-record-connecting-your-ID	19
https://orcid.org/signin	8
https://youtu.be/FaFIAG79-S4	5

[View more](#)



Plan - **Execute** - Assess - Iterate

Takeaways from running the challenge:

- Stats are addictive
- People wanted to join after the fact--awesome! But needed efficient ways to deliver the earlier content to them.
- It took basically all my time for two weeks
- When people hit “reply” to their daily message, their reply goes directly to the email address identified as the “coordinator” of the campaign in MailChimp--so ensure you’ve got the right person there



Plan - Execute - **Assess** - Iterate

January-March 2019







What information do we have?

- U-M Data warehouse information for demographics based on U-M username
- MailChimp statistics
- Unsolicited feedback from participants
- Participant survey
- Other stats, like ORCID where we see a bump in registrations on the day of the challenge

Plan - Execute - **Assess** - Iterate

Mailchimp statistics key takeaways

- The percentage of subscribers who opened the email each day ranged from 68% (day 8, h-index) to 87% (day 1-ORCID)
- The percentage of people who clicked on something in the email ranged from 9% (day 3, repositories) to 29% (day 1, ORCID)

 Day 6: What I do, what's important to me, & what "counts" Regular - University of Michigan Library Research Impact Challenge 2019 Sent Mon, January 21st 7:00 AM to 276 recipients by you	Sent	72.0% Opens	20.0% Clicks
 Day 4: Social Media Audit Regular - University of Michigan Library Research Impact Challenge 2019 Sent Thu, January 17th 7:00 AM to 273 recipients by you	Sent	80.1% Opens	18.4% Clicks
 Day 5: Your personal web page -- pulling the pieces together Regular - University of Michigan Library Research Impact Challenge 2019 Sent Fri, January 18th 7:00 AM to 274 recipients by you	Sent	76.9% Opens	10.3% Clicks
 Day 3: Preserve and share your work with a digital repository Regular - University of Michigan Library Research Impact Challenge 2019 Sent Wed, January 16th 7:00 AM to 272 recipients by you	Sent	77.9% Opens	8.9% Clicks
 Day 2: Claim your Google Scholar profile Regular - University of Michigan Library Research Impact Challenge 2019 Sent Tue, January 15th 7:00 AM to 258 recipients by you	Sent	79.0% Opens	15.6% Clicks
 Day 1: Register your ORCID and associate it with your U-M identity Regular - University of Michigan Library Research Impact Challenge 2019 Sent Mon, January 14th 7:00 AM to 233 recipients by you	Sent	86.6% Opens	28.9% Clicks



Plan - Execute - **Assess** - Iterate

Unsolicited feedback:

Rebecca,
as you can see below, I added my ORCID link to my email signature. Maybe this a good idea for others too. I was amazed how many of my recent pubs I found in ORCID through "Crossref Metadata Search". Curious email recipients now get an overview of my published work with one click. This saved a lot of time for me and my students bc in the past we have links pubs manually to the publication list on my lab website. Which was cumbersome and not very efficient since many links died over the years.
Again, thank you for the nice challenges,

[Associate Professor, Dept of Psychology]

Just wanted to say I've really enjoyed these over the past week. High yield and easy engagement.

Great initiative!

[Clinical Assistant Professor
Department of Radiology
Michigan Medicine]



Plan - Execute - **Assess** - Iterate

Participant survey:

- Qualtrics
- Sought feedback on both format of challenge and content of challenge
- Sent survey out to all subscribers
- 79 people completed it

How did you find out about the U-M Library Research Impact Challenge?

From my liaison librarian

Through a departmental email or similar communication

From a colleague

From the Library's social media feed

Other (please explain):



Plan - Execute - **Assess** - Iterate

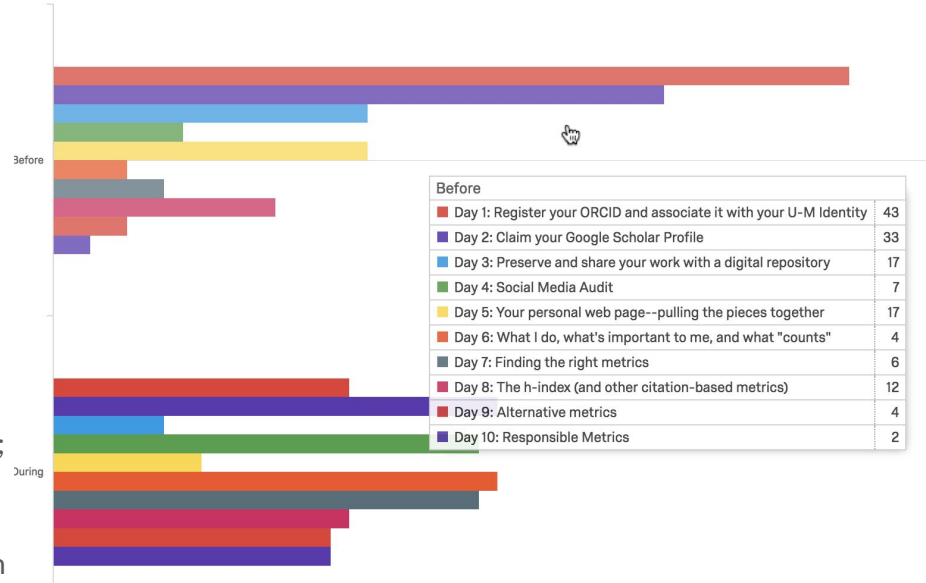
Participant survey: What we learned about the format of the challenge

- More than half of respondents found out about the challenge via email from their departments
- 65% felt that daily emails were “just right;” 30% thought it was too much (no one wanted more!)
- 64% felt that two weeks was a good length of time; 22% felt it was too long
- Received suggestions about how to reduce intensity: including shorter daily activities or sending the messages weekly over a semester instead of daily for a short period
- Everyone said they liked email as channel
- Interesting feedback on time of day: I chose first thing in the morning on weekdays but some suggested Friday afternoons or weekends would fit their workload better

Plan - Execute - **Assess** - Iterate

Participant survey: What we learned about the content of the challenge:

- 65% of respondents had already registered an ORCID, 50% had already claimed their Google scholar profile, but most of the rest of the activities were new
- Online presence was easier to “sell” than research impact. The last three days of the challenge had $\frac{1}{3}$ of respondents indicating they had no intention of doing the challenge
- The “most liked” activities were the first three days; “least liked” were the last three. Meaningful?
- For each activity, from 38-50% of respondents indicated they learned something. Never more than 50%!





Plan - Execute - **Assess** - Iterate

Participant survey: Do people want more?

- 95% said they would participate in a future research impact challenge with new activities
- Combining the “yes” and the “depends on the topic” answers, more than 95% of respondents said they would be interested in participating in a future email challenge on a different topic
- 72% said they’d be likely to access the materials from this challenge again or share them with others
- Overall open-ended feedback was quite positive, most suggestions for improvement were to spread out the activities so not so overwhelming. One suggestion for wrap up event to let people meet one another.


Celebrate!



Appreciate!



Ideate - Consult - Adapt - Execute - Assess - **Iterate**

- Refine, update, and re-offer this challenge in January 2020. New opportunities: Meet-up? Incentives?
- Potential to model new challenges on this one?
 - Future topics of interest from our survey results: accessibility, how to actually do promotion/public outreach, intersections of research and pedagogy, NIH requirements, Resources to find scholarly literature, grant proposal writing, scholcomm/copyright/open access, privacy, managing your personal digital archive, intro to library resources in general, publication/manuscript submission process, finding the right publication venue, digital humanities, hard-to-find/little known research resources, impact in your field beyond the scholarly publication....)
- [Materials publicly available now for re-use as a LibGuide](#)



Be in touch!

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